CLAIMS

What is claimed is:

1. A multi-lingual tag extension mechanism for providing tag library extension functionality, the mechanism comprising:

   a doStart ( ) method;

   a doBody ( ) method; and

   a doEnd ( ) method.

2. The mechanism of Claim 1, wherein the body is evaluated as a BodyEvaluation object, which is passed into the doBody ( ) method.

3. The mechanism of Claim 2, wherein the doBody ( ) method returns "true" if more body evaluations are needed.

4. The mechanism of Claim 2, wherein the doStart method returns a boolean value.

5. The mechanism of Claim 2, wherein the doStart method returns an integer value.

6. The mechanism of Claim 2, wherein the doStart ( ) method is first invoked with attribute value data, and returns a boolean value indicating if a body needs to be evaluated.

7. The mechanism of Claim 3, wherein when no more body evaluations are needed, the doEnd ( ) method is evaluated, and any scripting variables which have been created or updated are synchronized.

8. The mechanism of Claim 7, wherein the doBody ( ) evaluations are nested.

9. The mechanism of Claim 1, wherein a tag structure corresponding to an original scripting page is preserved during a page translation.

10. The mechanism of Claim 9, wherein the mechanism is implemented in a JavaServer Pages environment.

11. The mechanism of Claim 10, wherein the doEnd ( ) method returns a value indicating whether to continue processing the page.

1   12. The mechanism of Claim 2, wherein the BodyEvaluation object does not contain

2   an entire closure context.

1   13. A method for processing an action in a Web page to provide tag library extension

2   support, the method comprising:

3   creating a doStart ( ) method;

4   creating a doBody ( ) method; and

5   creating a doEnd ( ) method.

1   14. The method of Claim 13, wherein a BodyEvaluation object is passed to the

2   doBody ( ) method for processing.

1   15. The method of Claim 14, wherein the doStart ( ) method is first invoked with

2   attribute value data, and returns a boolean value indicating if a body needs to be evaluated.

1   16. The method of Claim 14, wherein attribute values are set using a Java Bean

2   mechanism.

1   17. The method of Claim 14, wherein the doBody ( ) method returns "true" if more

2   body evaluations are needed.

1   18. The method of Claim 17, wherein when no more body evaluations are needed, the

2   doEnd ( ) method is evaluated, and any scripting variables which have been created or updated

3   are synchronized.

1   19. The method of Claim 18, wherein the doBody ( ) evaluations are nested.

1   20. The method of Claim 14, wherein the method is implemented in a JavaServer Pages

2   environment.

1   21. The method of Claim 14, wherein the doBody ( ) method comprises a doInitBody ( )

2   method and a doAfterBody ( ) method, and wherein the doInitBody ( ) method is executed only

3   during a first iteration of the body evaluation.

1   22. A method for translating an action tag in a JavaServer Page, wherein the method

2   provides support for multiple scripting languages, the method comprising:

3   (a) generating and storing code for any attribute values in a tag instance;

4   (b) instantiating the tag;

5   (c) invoking a doStart ( ) method;

6   (d) creating a BodyEvaluation object if necessary;

7   (e) If a (evaluate_body) result is true, then

8   (i) invoking a doBody ( ) method on the BodyEvaluation object;

9   (ii) if the doBody() method returns true, then goto (e)

10   (f) invoking a doEnd ( ) method on the tag of the tag instance; and

11   (g) synchronizing any indicated scripting variables.

1   23. A computer readable medium including computer program code for providing a

2   multi-lingual tag extension mechanism, the computer readable medium comprising:

3   computer program code for invoking a doStart ( ) method;

4   computer program code for invoking a doBody ( ) method; and

5   computer program code for invoking a doEnd ( ) method.

1   24. A computer system providing a multi-lingual tag extension mechanism, the

2   computer system comprising:

3   a procesor; and

4   a computer program operating on the processor to translate an action tag, the computer

5   program including computer program code for invoking a doStart ( ) method, a doBody ( )

6   method, and a doEnd ( ) method for each action tag in a Web page.

1   25. A method of providing a tag library interface mechanism, the method comprising:

2   providing a doStart ( ) method;

3   providing a doBody ( ) method; and

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4   providing a doEnd ( ) method;

5   wherein a tag can be translated in an "in-line" manner without knowledge of the

6   scripting language and without using a closure.